

**REMARKS**

Applicants respectfully request reconsideration of this application in view of the foregoing amendments and the following comments.

In the Office Action mailed April 25, 2002, all claims were rejected under 35 U.S.C. § 103(a), as allegedly obvious over various combinations of the following references: Japanese Patent Application Publication No. JP 9-248355 (the "JP '355" application), U.S. Patent No. 4,220,336 to Kochevar (the "Kochevar" patent), PCT Patent Application Publication No. WO 00/62873 (the "WO '873" application), U.S. Patent No. 4,667,963 to Yoneyama (the "Yoneyama" patent), U.S. Patent No. 5,348,302 to Sasamoto et al. (the "Sasamoto" patent), U.S. Patent No. 5,452,890 to Bingman (the "Bingman" patent), and U.S. Patent No. 5,888,148 to Allen (the "Allen" patent).

By this Amendment, Applicants add claims 17-19 and respectfully traverse the rejections to the claims under Section 103. Nineteen claims are presented for reconsideration. Applicants briefly describe the invention and, thereafter, specifically address the rejections.

**I. The Present Invention**

The present invention resides in an improved golf club, and in a method for making it. The golf club head has a heel, a toe, and a ball-striking face, with the heel including a hosel that defines a generally cylindrical cavity. A hosel plug, of selected weight, is installed into a lower portion of the hosel cavity, and a shaft is installed into an upper portion of the hosel cavity, at a location above the hosel plug. The hosel plug comprises a mixture of a metallic powder and a compliant polymeric material, in prescribed relative proportions, and it is sized to fit snugly into the lower portion of the hosel cavity, where it is secured in place by compression of its compliant polymeric material.

The hosel plug is selected from a plurality of hosel plugs, all having substantially the same size and shape, but each having a different proportion of the metallic powder and the compliant polymeric material so as to have a different weight. The particular hosel plug is selected so that its weight will provide the golf club head with the desired total weight.

Independent claims 1 and 8 define a golf club and a method of making it, respectively, both including a hosel plug comprised of a mixture of a metallic powder and a compliant polymeric material, in prescribed relative proportions and secured in place by compression of its compliant polymeric material. Dependent claims 2-7 and 9-15 depend from one of the aforementioned independent claims, adding features that further detail the present invention. Independent claim 16 even more particularly defines the invention.

## **II. The Rejection of Claims 1, 3-4, 6, 8-9, 11 and 15.**

Claims 1, 3-4, 6, 8-9, 11 and 15 were rejected under 35 U.S.C. § 103(a), as allegedly obvious over the JP '355 application in view of the Kochevar patent and the WO '873 application. Applicants assert that the rejection fails to establish a *prima facie* case of obviousness.

The fact that the references can be combined or modified is not sufficient to establish a *prima facie* case of obviousness. The Federal Circuit has repeatedly emphasized the criticality of identifying, in the prior art, a teaching or motivation to combine references. For example, in the case In re Kotzab, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313 (Fed. Cir. 2000) the court stated:

"Most if not all inventions arise from a combination of old elements. Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient

to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. [cites omitted]."

The motivation must be identified in the prior art and not the present application. *Id*. Importantly, where the teachings of the references teach away or dissuade one of ordinary skill in the art from the asserted combination, the references cannot be combined. See MPEP 2143.01.

The JP '355 application, the Kochevar patent and the WO '873 application fail to provide any teaching, suggestion, or motivation to arrive at a golf club, and related method, having all the features of independent claims 1 and 8, including a hosel plug of a substantially cylindrical in shape, comprising a mixture of a metallic powder and a compliant polymeric material, in prescribed relative proportions and secured in place by compression of its compliant polymeric material. In contrast, the JP '355 application discloses a weight (11) formed of a single material and held in place by an adhesive. The Examiner properly acknowledges that the JP '355 application fails to disclose or suggest a hosel plug comprising a mixture of a metallic powder and a compliant polymeric material held in place by compression of its compliant polymeric material.

However, both the Kochevar patent and the WO '873 application fail to supply the shortfalls of the JP '355 application. The WO '873 application discloses a shaft insert (108) positioned in the club shaft to reduce torsional force resulting from the club head. The insert may be a metal core covered by a flexible polymer material, entirely a metal or metal alloy, or entirely a polymer material. See pg. 4, lines 21-31. It does not disclose, or even suggest, use of the polymer material in conjunction with a

metallic powder to weight a club head. It is not intended to add weight to the club head, rather it serves an entirely different purpose, namely, to absorb torsional force. (C)

The Kochevar patent discloses an extrudable weight capsule (11) having a mass (13) of a putty-like consistency and a sheath of a readily deformable or rupturable material. See col 3, lines 25-50. The mass is formed of a particulate material held together by a deformable binder, such as beeswax, that serves to bind the material together, and it may further include a sticky or adherent material. Notably, it does not include a compliant polymeric material. To install, the weight capsule is placed in a cavity and is sufficiently compressed to deform, or even rupture, the sheath, causing the mass to conform and even stick to the walls of the cavity. See col. 5, lines 1-3 and 27. (C)

In fact, upon reading the Kochevar patent, one skilled in the art would have been deterred from combining the references in the manner prescribed by the rejection. First, Kochevar teaches away from use of solid plugs, such as those of the JP '355 application, for weighting golf clubs. For example, Kochevar asserts that use of solid plugs makes "difficult or impossible to provide fine adjustments in the weight." Col. 1, lines 31 - 32. Rather, Kochevar repeatedly emphasizes the importance of a plug having a putty-like consistency. As asserted by Kochevar, the putty-like consistency allows the weight capsule to conform to the shape of the cavity, and it also allows for fine weight adjustment, by manually tearing off or manually adding portions of the weight composition. Moreover, combining the polymer material of the WO '873 application with the mass of Kochevar would cause it to lose its putty-like consistency, which is antithetical to the Kochevar patent. Thus, the proposed combination is improper. (C)

Accordingly, the obviousness rejection of independent claims 1 and 8 and their dependent claims 3-4, 6, 9, 11 and 15, is improper and should be withdrawn.

### **III. The Rejection of Claims 2 and 13-14.**

Claims 2 and 13-14, were rejected under 35 U.S.C. § 103(a), as allegedly obvious over the JP '355 application in view of the Kochevar patent and the WO '873 application, and in further view of the Yoneyama patent and the Sasamoto patent. Applicants respectfully traverse these rejections.

Claims 2 and 13-14 dependent from independent claims 1 and 8, respectively, adding features that more particularly define the invention, including defining the metallic powder of the hosel plug to comprise tungsten and defining the compliant polymeric material of the hosel plug to comprise nylon.

Both the Yoneyama patent and the Sasamoto patent disclose providing a filler in a cavity behind the club head face. They do not address any of the shortcomings of JP '355, Kochevar and WO '873 discussed above, such as, teaching a hosel plug comprised of a mixture of a metallic powder and a compliant polymeric material, in prescribed relative proportions and secured in place by compression of its compliant polymeric material. They fail provide any teaching, suggestion, or motivation to arrive at a golf club having all of the features of independent claims 1 and 8, let alone claims 2 and 13-14.

For these reasons and the reasons set forth above, the obviousness rejection of claims 2 and 13-14 is improper and should be withdrawn.

### **IV. The Rejection of Claims 5 and 12.**

Claims 5 and 12 were rejected under 35 U.S.C. § 103(a), as allegedly obvious over the JP '355 application in view of the Kochevar patent and the WO '873 application, and in further view of the Bingman patent. Applicants respectfully traverse these rejections.

Claims 5 and 12 depend from independent claims 1 and 8, respectively, adding features that more particularly define the invention, They define the hosel's lower cylindrical cavity as having a diameter about 8.5 mm and a length of about 10 mm; and they define the hosel's upper cylindrical cavity as having a diameter of about 9 mm and a length of about 25 mm.

Bingman discloses a metal wood type club having a bore for receiving a club shaft. It does not address any of the shortcomings of JP '355, Kochevar and WO '873 discussed above. As shown FIGS. 2, 3, 5, 9 and 10, the shaft extends to the bottom of the shaft. It does not contemplate adding weight within the bore, let alone hosel plug comprised of a mixture of a metallic powder and a compliant polymeric material, in prescribed relative proportions and secured in place by compression of its compliant polymeric material.

For these reasons and the reasons set forth above, the obviousness rejection of claims 5 and 12 is improper and should be withdrawn.

**V. The Rejection of Claims 7 and 10.**

Claims 7 and 10 were rejected under 35 U.S.C. § 103(a), as allegedly obvious over the JP '355 application in view of the Kochevar patent and the WO '873 application, and in further view of the Allen patent. Applicants respectfully traverse these rejections.

Claims 7 and 10 depend from independent claims 1 and 8, respectively, adding features that more particularly define the invention, including having the hosel plug constitute between about 0.25 % and at least about 3.25 % of the club head's total weight.

The Allen patent discloses a club head having a power shaft that extends along the target line. It does not address any of the shortcomings of JP '355, Kochevar

and WO '873 discussed above. It fails provide any teaching, suggestion, or motivation to arrive at a golf club having all of the features of independent claims 1 and 8, let alone claims 7 and 10.

For these reasons and the reasons set forth above, the obviousness rejection of claims 7 and 10 is improper and should be withdrawn.

**VI. The Rejection of Claim 16.**

Independent claim 16 was rejected under 35 U.S.C. § 103(a), as allegedly obvious over the JP '355 application, the Kochevar patent, the WO '873 application, the Yoneyama patent, the Sasamoto patent, the Bingman patent, the Allen patent. Applicants respectfully traverse this rejection.

Independent claim 16 more particularly defines the invention relative to independent claim 1. It defines a golf club comprising a head having a heel end, a toe end, and a ball-striking face, wherein the heel end defines a hosel that includes a lower cylindrical cavity having a first diameter and an upper cylindrical cavity having a second diameter, larger than the first diameter. The club includes a substantially cylindrical hosel plug, and a shaft having a lower end sized to fit into, and be secured to, the upper cylindrical cavity of the hosel, above the hosel plug. The hosel plug comprises a mixture of a tungsten powder and nylon, in prescribed relative proportions and is sized to fit snugly into the lower cylindrical cavity of the hosel, where it is secured in place by compression of its compliant polymeric material. Moreover, the hosel plug constitutes between about 0.25 % and at least about 3.25 % of the club head's total weight.

The rejection against claim 16 relies upon no less than six references to arrive at the claimed invention. However, as previously discussed, none of the references provide any teaching, suggestion, or motivation to arrive at a golf club having all of the features of independent claim 1, let alone claim 16. D

For this reason and for the reasons set forth above, the obviousness rejection of claim 16 is improper and should be withdrawn.

**VII. New Claims 17-19**

New claims 17-19 depend from independent claims 1, 8 and 16, as indicated, adding features that more particularly define the invention, including defining the hosel plug as is secured in place within the hosel cavity by slight compression of its compliant polymeric material and without need of deforming from its substantially cylindrical shape. No new matter has been added. *See* Appl. page 7, lines 13-14 ("In the plug's installed position, the compliant polymeric material is slightly compressed, to secure the plug in place by an interference fit.")

For this reason and for the reasons set forth above, claims 17-19 should be allowed.



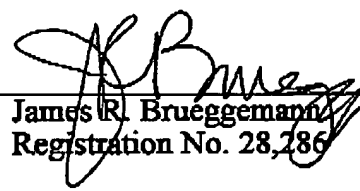
**VIII. Conclusion**

The foregoing remarks should place this application in condition for allowance. If any matters remain outstanding after consideration of this Amendment that the Examiner believes might be expedited by a telephone conference with Applicants' representative, he is respectfully requested to call the undersigned attorney at the number indicated below.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

17. (New) A golf club as defined in claim 1, wherein the hosel plug is secured in place within the hosel cavity by slight compression of its compliant polymeric material and without need of deforming from its substantially cylindrical shape.

18. (New) A method as defined in claim 8, wherein the hosel plug is secured in place within the hosel cavity by slight compression of its compliant polymeric material and without need of deforming from its substantially cylindrical shape.

19. (New) A golf club as defined in claim 16, wherein the hosel plug is secured in place within the hosel cavity by slight compression of its compliant polymeric material and without need of deforming from its substantially cylindrical shape.